

McCARDLE ET AL. v. INDIANAPOLIS WATER
COMPANY.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR
INDIANA.

No. 37. Argued April 16, 19, 1926.—Decided November 22, 1926.

1. In determining the present value of the property of a public utility for rate-making purposes, consideration must be given to prices and wages prevailing at the time of the investigation; and, in the light of all the circumstances, there must be an honest and intelligent forecast as to probable price and wage levels during a reasonable period in the immediate future. P. 408.
2. In every confiscation case, the future as well as the present must be regarded. It must be determined whether the rates complained of are yielding and will yield, over and above the amounts required to pay taxes and proper operating charges, a sum sufficient to constitute just compensation for the use of the property employed to furnish the service; that is, a reasonable rate of return on the value of the property at the time of the investigation and for a reasonable time in the immediate future. P. 408.
3. It is well established that values of utility properties fluctuate, and that owners must bear the decline and are entitled to the increase. P. 410.
4. The weight to be given to the original and present costs of construction, and other items or classes of evidence, is to be determined in the light of the facts of the case in hand. P. 410.
5. In this case prices and values have so greatly changed that the amount paid for land in the early years of the enterprise and the cost of plant elements constructed prior to the great rise of prices due to the war do not constitute any real indication of their value at the present time. P. 410.
6. The reasonable cost of a system of waterworks, well planned and efficient for the public service, is good evidence of its value at the time of construction. And such actual cost will continue fairly well to measure the amount to be attributed to the physical elements of the property so long as there is no change in the level of applicable prices. P. 411.
7. If the tendency or trend of prices is not definitely upward or downward and it does not appear probable that there will be a substantial change of prices, then the present value of lands plus

the present cost of constructing the plant, less depreciation, if any, is a fair measure of the value of the physical elements of the property. P. 411.

8. The validity of rates fixed for a public utility depends on property value as of the effective date of the order and for a reasonable time thereafter. P. 411.
9. While the values of such properties do not vary with frequent minor fluctuations in the prices of material and labor required to produce them, they are affected by and generally follow the relatively permanent levels and trends of such prices. P. 411.
10. Judicial notice taken of the facts that, since the end of the year 1923, there has been no general decline in the prices of labor and materials; and that the trend has been upward rather than downward. P. 412.
11. In valuing the property of a water works company for rate-making, the value of its water rights, should be included, and likewise the "going concern value" of the plant. P. 413.
12. In determining what shall be deducted for depreciation, the testimony of competent valuation engineers who examined the property and made estimates in respect of its condition is to be preferred to mere calculations based on averages and assumed probabilities. P. 416.
13. The plant to be valued is the plant used to give the service and not the estimated cost of a different plant. Save under exceptional circumstances, the court is not required to enter into a comparison of the merits of different systems. P. 417.
14. Evidence held more than sufficient to sustain 7% as a reasonable rate of return for a water company. P. 419.
15. Rates of yield on investments in bonds plus brokerage are substantially less than the rate of return required to constitute just compensation for the use of properties in the public service. P. 419.
16. In a suit like this the District Court should make specific findings as to value, reasonable rate of return, and net earnings. P. 420.
17. But to avoid prolonging such a litigation this Court may determine whether the facts in the record justify the conclusion below, rather than remand for further findings. P. 420.

Affirmed.

APPEAL by the members of the Public Service Commission of Indiana and the City of Indianapolis from a decree

of the District Court, entered without opinion, enjoining enforcement of the Commission's order fixing the rates of the Water Company.

Messrs. Arthur L. Gilliom, Attorney General of Indiana, and *Taylor E. Groninger*, with whom *Messrs. Edward M. White*, Assistant Attorney General, *James M. Ogden*, and *Clair McTurnan* were on the brief, for appellants.

Mr. William L. Ransom, with whom *Messrs. Albert Baker*, *Joseph J. Daniels*, and *W. A. McInerny* were on the brief, for appellee.

MR. JUSTICE BUTLER delivered the opinion of the Court.

June 8, 1923, the water company filed with the commission its petition in which it stated that its rates were too low and proposed a higher schedule. The city of Indianapolis answered, alleging that the rates in force were adequate. After hearing the parties, the commission found that, as of May 31, 1923, the value of the property used was not less than \$15,260,400; that the annual return under existing rates would be approximately \$800,000; that seven per cent. was a reasonable rate of return; that the rates in force were insufficient and that those proposed would be exorbitant and discriminatory. And the commission made an order, effective January 1, 1924, prescribing a schedule increasing some of the rates. In its report it stated that the rates authorized might not produce a seven per cent. return for the immediate future; but it expressed belief that on the average over a period of approximately three years the schedule would produce an adequate return.

This suit was brought by the company against the members of the commission to enjoin the enforcement of that order on the ground that the rates prescribed are confiscatory. The members of the commission answered. The

city intervened and answered. There was involved the value of the property used, probable earnings, operating expenses, and the amount required to constitute just compensation safeguarded by the Fourteenth Amendment.

The decree states that the court, in an opinion given orally, sustained as proved the material averments of the complaint, and held that the amount as found by the commission was less than the fair value of the property as of January 1, 1924, by more than \$3,500,000, and that "the fair value of complainant's said property at said time was and is not less than \$19,000,000, and that the water rates imposed in that order . . . are too low and are confiscatory of complainant's said property"; and it enjoins the enforcement of the order. The members of the commission and the city appeal jointly. § 238, Judicial Code.

Appellants contend that the court adopted as the measure of value the cost of reproduction new less depreciation, estimated on the basis of spot prices as of January 1, 1924, or gave that figure controlling weight. The appellee says that the cost of reproduction less depreciation, estimated at such prices, was shown to be more than \$22,500,000, and that the court did not adopt such costs as a measure or give them undue weight as evidence of value.

The record contains three reports of the commission dealing with valuations of the company's property. In Case No. 1400, the commission, March 15, 1917, reported that, as of January 1, 1917, the value of the company's property used in the public service was not less than \$9,500,000. In Case No. 6613, the commission, January 2, 1923, reported that as of December 31, 1921, the valuation of the company's operative and nonoperative property was \$16,455,000. In case No. 7080, the commission, November 28, 1923, made the order attacked in this suit. It reported that as of May 31, 1923, the value of the company's operative property was not less than \$15,260,400.

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In No. 1400, the commission stated: The accounting of complainant and its predecessor was defective in that there was not a careful division of expenditures between capital account and operating expenses. The plant account of the predecessor company owning and operating the plant from 1869 to 1881 was \$1,574,840.04, but it expended more than \$200,000 that is not included in that figure. According to complainant's books it expended between April 23, 1881 and January 1, 1917 for construction, \$6,112,320.86. The amount of moneys actually invested in the plant exceeded \$8,000,000; and real estate value had appreciated more than \$1,500,000. The commission did not definitely state the original cost of construction or the total expenditures for permanent improvements. It found the cost of reproduction new—including \$328,000 for going value and \$75,000 for working capital—to be \$10,406,431, and that less depreciation \$9,670,191. The estimate was based on prewar prices—those prevailing in 1916 and prior years. It reported that the property could not be duplicated "to-day [January 1, 1917] for less than \$12,500,000." This figure covered only the physical operative property. Nevertheless the commission fixed the "value of all the property . . . that is used and useful for the convenience of the public at not less than \$9,500,000." This is the sum of \$8,000,000, stated as the minimum amount of money expended to produce the plant, and \$1,500,000, the increase in the value of the company's land. It is apparent that the enhancement in the value of the plant other than land was not taken into account, and that nothing was included for cash working capital, or intangible elements of value.

In Case No. 6613, the commission reported that between January 1, 1917, and November 31, 1922, capital additions amounted to \$1,639,146, which added to \$12,500,000, cost of duplication (as reported in Case No. 1400) made \$14,139,146. It said the company "would

be entitled to have added to this sum reasonable allowances for working cash, going value, water rights, and such other elements as may not have been included in the original figure and also the value of the non-operative property which apparently was not included in the original figure. The value on this basis would exceed \$16,000,000 for the whole property without giving any consideration to the enormous enhancement of value of all good property in Indianapolis which has occurred since January 1, 1917." And the commission set out a number of estimates based on different price levels, made by its own engineering staff of which Mr. Earl L. Carter was the head. There is shown, as to physical property only, the cost of reproduction less depreciation estimated on different price bases. Some of these estimates were on quoted market prices of cast iron pipe and some were on prices approximately ten per cent. less. This made a difference of about \$375,000. The estimates on the lower basis follow:

Average prices 10 years ending with 1920.....	\$13,979,744
10 years ending with 1921.....	14,689,078
10 years ending with 1922.....	15,232,676
5 years ending with 1922.....	18,335,974
Prices prevailing October 1, 1922.....	17,328,249

These include \$102,997 to cover materials and supplies.

The company submitted various estimates made by valuation engineers Hagenah and Erickson. There is shown below, in respect of physical property only, cost of reproduction less depreciation.

Average prices 10 years ending with 1920.....	\$16,020,456
5 years ending with 1921.....	20,535,543
Prices prevailing October 1, 1922.....	19,447,193

There were added for materials and supplies \$100,000, for working capital \$135,000, for water rights \$500,000, and for going value \$2,000,000.

The company also submitted estimates and appraisals made by valuation engineers, Sanderson and Porter.

They estimated cost of reproduction of the "bare physical property" on prices as of October 1, 1922, at \$19,087,560, and on average of prices for ten years ending with 1920, at \$16,169.257. Neither of these included anything on account of working capital, water rights or going value. To cover working capital \$267,312 was added and for water rights and going value \$2,355,050.

By its order the commission fixed the value of the property at \$16,455,000. Its report shows that figure to have been made up as follows:

Commission's engineering staff's appraisal, cost of reproduction less depreciation, on basis of average level of labor and material prices for the 10-year period ending December 31, 1921, including materials and supplies.....	\$14, 689, 000 ¹
Capital additions from April 1, 1922 to October 31, 1922, at actual cost.....	215, 000
Total physical property.....	\$14, 904, 000
Going value and water rights, 9½%.....	1, 416, 000
	\$16, 320, 000
Working cash capital.....	135, 000
Total value.....	\$16, 455, 000

In case No. 7080, the commission's valuation of the company's properties used in the public service, as of May 31, 1923, is \$1,194,600 less than the amount found by the commission to be the value of all its property—operative and non-operative, as of October 1, 1922. The total of working capital, water rights and going value was reduced \$571,000, and the value of the tangible property \$623,600.

¹ This includes \$648,921 estimated by Mr. Carter to cover items of property classified by him as non-operative. Mr. Metcalf, consulting engineer for the company, finds \$68,000 to be the value of the items he classifies as non-useful. And Mr. Hagenah so classifies items to which he assigns \$119,000.

At the trial in the lower court, the company introduced estimates of the cost of reproduction less depreciation, made by Hagenah and Erickson, as follows:

Prices prevailing December 31, 1923.....	\$22,669,026
Average prices 5 years ending with 1923.....	22,652,799
3 years ending with 1923.....	21,625,358
10 years ending with 1923.....	19,624,354

To each of these were added \$235,000 to cover working capital, consisting of materials, supplies and cash, \$500,-000 for water rights, and \$2,000,000 for going value.

And the company also introduced similar estimates by Sanderson and Porter, as follows:

Prices prevailing December 31, 1923.....	\$21,898,662
Average prices 5 years ending with 1923.....	21,863,858
3 years ending with 1923.....	20,968,127
10 years ending with 1923.....	18,931,979

To each of these were added \$361,245 to cover working capital (consisting of materials and supplies \$127,939, being the average amount on hand in 1923, and \$233,306 cash, being one-eighth of one year's gross earnings), \$500,-000 for water rights, and \$2,098,000, going value.

Mr. Carter testified that his estimate, \$14,689,078, adopted by the commission in No. 6613, was based on average prices in the ten years ending with 1921, on the inventory as of April 1, 1922. He said that, based on average prices in ten years ending with 1923, the cost of reproduction less depreciation was \$16,006,370, and that between April 1, 1922 and December 31, 1923 there had been made net additions amounting to \$1,010,105, making a total in round figures of \$17,000,000. And he also testified that on the basis of prices prevailing January 1, 1924, the cost of reproduction less depreciation was \$19,-500,000. All his estimates covered fixed physical property, material and supplies, but include nothing for cash working capital, water rights or going value.

The commission's report in No. 6613 highly commends the estimates made by its chief engineer and his assistants. It states that the valuation engineers employed by the company are firms of national reputation and unquestioned standing, and that the difference between appraisals made by its own staff and those presented for the company are due to differences of opinion as to the "application of the cost of reproduction theory to the ten-year period prices," details of the work necessary to construct the property, amount to be included for structural overheads, and the condition of certain items of the property. It says that these differences have been analyzed and explained by the parties, and that further analysis and careful weighing of the evidence would be likely to lead to a compromise figure between the two extremes. "However that may be, the Commission is inclined to accept the report of its staff as a basis of value believing it to be conservative and accurate. Considering all the facts, including all the appraisals and the other evidence concerning the trend of prices, the Commission is of the opinion that in this case the average of prices for the ten-year period ending with 1921, the last full ten years available, most nearly represents the fair value of petitioner's physical property."

But in determining present value, consideration must be given to prices and wages prevailing at the time of the investigation; and, in the light of all the circumstances, there must be an honest and intelligent forecast as to probable price and wage levels during a reasonable period in the immediate future. In every confiscation case, the future as well as the present must be regarded. It must be determined whether the rates complained of are yielding and will yield, over and above the amounts required to pay taxes and proper operating charges, a sum sufficient to constitute just compensation for the use of the property employed to furnish the service; that is, a reasonable rate of return on the value of the property at the

time of the investigation and for a reasonable time in the immediate future. *S. W. Tel. Co. v. Pub. Serv. Comm.*, 262 U. S. 276, 287, 288; *Bluefield Co. v. Pub. Serv. Comm.*, 262 U. S. 679, 692. Cf. *Board of Utility Commissioners v. New York Telephone Co.*, 271 U. S. 23, 31.

The commission further said: "If it were known that the present price level would continue indefinitely in the future and that the purchasing power of the dollar would remain the same, then the cost of reproduction at the time of the inquiry would be the true measure of value. . . . It is likely that there will be some reduction from the present price level. . . . The value is being fixed not for today, but for a reasonable period in the future. Consequently, the reasonableness of the use of average prices is apparent. It is extremely doubtful if at any time within the next ten years prices will be as low as the prices used [those in the 10 years ending with 1921] . . . and it is equally certain that the average prices for the next, say, five years will be at least as high as the ten-year average used in this valuation. . . . The iron and steel industries are enjoying greatly increased business and a general increase of about twenty per cent. in wages has been made. The increase in the wage scale has been reflected in the increased cost of iron pipe and other material. There seems to be no prospect of lower prices for such products. However much we may deplore the situation, the fact is that prices are on a permanently high level as compared with prewar times and there is no likelihood whatever that a price level anywhere near approximating the low level of prewar times will prevail for many years in the future." The commission pointed out that enhancement of value "may occur, first, when there is no change in the purchasing power of the dollar by reason of various circumstances such as the natural increment of land values in a growing city, and, second, by a decrease in the purchasing power or value of the dollar." And it added, "Both factors affect this property."

In explanation of the price levels used, the commission said, "By adopting the appraisal [the estimate of cost of reproduction less depreciation made by its own staff] on the basis of the average prices of labor and material for the ten-year period ending with 1921, the Commission recognizes the influence of the original cost factor. It is believed that the fair original cost of the physical property was from 12 to 20 per cent. less than the \$14,904,000 used as a basis herein. On the other hand, the evidence shows that the cost of reproducing the physical property today would be from \$4,500,000 to \$5,000,000, or from 30 to 35 per cent. more than the said sum of \$14,904,000. . . . There is no doubt that the element of original cost has been recognized sufficiently. There is doubt as to whether or not the element of the cost of reproduction new today has been given sufficient weight."

It is well established that values of utility properties fluctuate, and that owners must bear the decline and are entitled to the increase. The decision of this court in *Smyth v. Ames*, 169 U. S. 466, 547, declares that to ascertain value "the present as compared with the original cost of construction" are, among other things, matters for consideration. But this does not mean that the original cost or the present cost or some figure arbitrarily chosen between these two is to be taken as the measure. The weight to be given to such cost figures and other items or classes of evidence is to be determined in the light of the facts of the case in hand. By far the greater part of the company's land and plant was acquired and constructed long before the war. The present value of the land is much greater than its cost; and the present cost of construction of those parts of the plant is much more than their reasonable original cost. In fact, prices and values have so changed that the amount paid for land in the early years of the enterprise and the cost of plant elements constructed prior to the great rise of prices due to

the war do not constitute any real indication of their value at the present time. *Standard Oil Co. v. So. Pacific Co.*, 268 U. S. 146, 157; *Georgia Ry. v. R. R. Comm.*, 262 U. S. 625, 630-631; *Bluefield Co. v. Pub. Serv. Comm.*, *supra*, 691-692; *S. W. Tel. Co. v. Pub. Serv. Comm.*, *supra*, 287. Undoubtedly, the reasonable cost of a system of waterworks, well-planned and efficient for the public service, is good evidence of its value at the time of construction. And such actual cost will continue fairly well to measure the amount to be attributed to the physical elements of the property so long as there is no change in the level of applicable prices. And, as indicated by the report of the commission, it is true that, if the tendency or trend of prices is not definitely upward or downward and it does not appear probable that there will be a substantial change of prices, then the present value of lands plus the present cost of constructing the plant, less depreciation, if any, is a fair measure of the value of the physical elements of the property. The validity of the rates in question depends on property value January 1, 1924, and for a reasonable time following. While the values of such properties do not vary with frequent minor fluctuations in the prices of material and labor required to produce them, they are affected by and generally follow the relatively permanent levels and trends of such prices. The fact that original cost was probably 12 to 20 per cent. less than the estimate of the commission's engineer based on the average of prices for the ten years ending with 1921—two years before the rate order became effective—does not tend to support the commission's adoption of that estimate. The cost of reproduction on price levels prevailing January 2, 1923 was found to be 30 to 35 per cent. or from \$4,500,000 to \$5,000,000 more. The average of prices in the ten years ending with 1923—the effective date of the rate order—was shown by the testimony of the commission's chief engineer to produce a result nearly 14 per cent. higher than the figure adopted;

and, on the basis of prices prevailing on the effective date of the order, cost of reproduction less depreciation would be about 32 per cent. higher than that taken by the commission. The high level of prices and wages prevailing in 1922 and 1923 should be taken into account in finding value as of January 1, 1924 and in the years immediately following. Moreover, there is nothing in the record to indicate that the prices prevailing at the effective date of the rate order were likely to decline within a reasonable time—one, two or three years—to the level of the average in the ten years ending with 1923. And we may take judicial notice of the fact that there has been no substantial general decline in the prices of labor and materials since that time. The trend has been upward rather than downward. The price level adopted by the commission—the average for ten years ending with 1921—was too low. And it is clear that a level of prices higher than the average prevailing in the ten years ending with 1923 should be taken as the measure of value of the structural elements on and following the effective date of the rate order complained of.

For working capital, the commission's chief engineer included \$102,997 to cover materials and supplies. He did not include anything to cover cash working capital. The commission adopted his total and added \$135,000 for cash, making \$237,997 in all. The testimony of the company's witnesses supports a higher figure, and there was no other evidence on the subject. The amount is low when compared with those included in other cases.²

² *New York & Queens Gas. Co. v. Newton*, 269 Fed. 277, 284; *New York & Queens Gas Co. v. Prendergast*, 1 F. (2d) 351, 363; *Brooklyn Union Gas Co. v. Nixon* 2 F. (2d) 118; *Kings County Lighting Co. v. Prendergast*, 7 F. (2d) 192, 201, 217; *New York & Richmond Gas. Co. v. Prendergast*, 10 F. (2d) 167, 209, 210; *Bronx Gas & Electric Co. v. Public Service Commission*, 28 N. Y. State Dept. Rep. 329, 364 (aff'd 208 App. Div. 780).

The commission in No. 6613 discussed the company's water rights. It said: "Petitioner has acquired and now owns the right or privilege of taking and using all the water in White River and Fall Creek for the purposes incident to its business. This right is an extraordinarily valuable part of the whole value of this property. The right to use the water of White River has saved the water company and likewise the citizens of Indianapolis millions of dollars over what it would have cost to secure sufficient water for the needs of the city in any other possible way. . . . The water company is entitled to share in the benefit of this valuable possession by reason of the fact that by its foresight, ingenuity, and initiative it has taken this stream of uncertain flow of impure water and has converted it into an immense asset both to itself and to the public: . . . This whole plant . . . has been planned and constructed with an ingenuity and economy and foresight for the future needs of the city that is unequalled under any similar circumstances anywhere in the country. Indianapolis is probably the most unfortunately situated of any large city so far as the natural available water is concerned, yet the possibilities of an insignificant stream flowing through a thickly populated countryside have been so thoroughly developed that Indianapolis now has, and if it doubles in population will have, an ample supply of potent [potable] water at a cost much below the cost in many other cities more favorably located. This development of its water rights, which has been accomplished by the water company at times with extreme difficulty, does actually largely increase the value of the property."

The value of these water rights must be included. *San Joaquin Co. v. Stanislaus County*, 233 U. S. 454, 459.

The report further stated: "A good property has an intangible value or going concern value over and above the value of the component parts of the physical property.

. . . Any reasonable man with a knowledge of this property and the local conditions would unhesitatingly affirm that it had a value far in excess of the value of the pipe, buildings, grounds and machinery. Consider its earning power with low rates, the business it has attached, its fine public relations, its credit, the nature of the city and the certainty of large future growth, the way the property is planned and is being extended with the future needs of the city in view, its operating efficiency and standard of maintenance, its desirability as compared with similar properties in other cities and with other utilities of comparable size in this city. These things make up an element of value that is actual and not speculative. It would be considered by a buyer or seller of the property or by a buyer or seller of its securities."

The decisions of this court declare: "That there is an element of value in an assembled and established plant, doing business and earning money, over one not thus advanced, is self-evident. This element of value is a property right, and should be considered in determining the value of the property, upon which the owner has a right to make a fair return when the same is privately owned although dedicated to public use." *Des Moines Gas Co. v. Des Moines*, 238 U. S. 153, 165; *Denver v. Denver Union Water Co.*, 246 U. S. 178, 191, 192. And see *National Waterworks Co. v. Kansas City*, 62 Fed. 853, 865; *Omaha v. Omaha Water Co.*, 218 U. S. 180, 202, 203, and cases cited.

The commission January 2, 1923 in No. 6613 included \$1,416,000, being 9.5 per cent. of the amount attributed to the physical elements, to cover water rights and going value. November 28, 1923 in No. 7080, it included only \$980,000 to cover working capital, water rights and going value. There is no specification of the amount assigned to each. It stated that the amount was a smaller percentage of the value of the physical property than is

usually allowed in such cases. There is nothing in the record to justify the reduction. Deducting \$135,000 for cash working capital, the amount included for water rights and going value is less than six per cent. of the value of the physical elements as fixed by it. Having regard to the character of the system, that amount is clearly too low. The valuation engineers called by the company appraised water rights and going value separately. Each fixed the value of water rights at \$50,000, and one put going value at \$2,000,000 and the other at a slightly higher figure. The commission's engineer made no appraisal of water rights or going value. The evidence is more than sufficient to sustain 9.5 per cent. for going value. And the reported cases showing amounts generally included by commissions and courts to cover intangible elements of value indicate that ten per cent. of the value of the physical elements would be low when the impressive facts reported by the commission in this case are taken into account.³

The commission and the city submit the same brief. Some of their contentions are opposed to the commission's findings above referred to. They support an estimate or appraisal made by Walter S. Bemis, an engineer

³ *Omaha v. Omaha Water Co.*, 218 U. S. 180, 202; *Denver v. Denver Union Water Co.*, 246 U. S. 178, 184; *Bluefield Co. v. Pub. Serv. Com.*, 262 U. S. 679, 686; *Streator Aqueduct Co. v. Smith*, 295 Fed. 385, 390; *Westinghouse Electric Co. v. Denver Tramway Co.*, 3 F. (2d) 285, 298; *Southern Bell Tel. & Tel. Co. v. Railroad Commission*, 5 F. (2d) 77, 87; *Consolidated Gas Co. of N. Y. v. Prendergast*, 6 F. (2d) 243, 259; *Kings County Lighting Co. v. Prendergast*, 7 F. (2d) 192, 217; *Citizens Gas Co. v. Public Service Commission*, 8 F. (2d) 632; *New York & Richmond Gas Co. v. Prendergast*, 10 F. (2d) 167, 208, 210; *Pioneer Telephone Co. v. Westenhaver*, 29 Okla. 429, 448; *Public Service Co. v. Public Utility Bd.*, 84 N. J. L. 463, 479; *Oshkosh Water Works Co. v. Railroad Commission*, 161 Wis. 122, 129, 131; (cf. *Appleton Water Works v. Railroad Commission*, 154 Wis. 121); *Northern Pacific Ry. Co. v. State*, 84 Wash. 510; *State v. Telephone Co.*, 115 Kans. 236, 241, 261.

called by the city. He reported that, as of December 31, 1923, the cost of reproduction new was \$12,216,508.05 and that less depreciation \$9,220,214.18. The estimate is based on "ten year average prices from 1911 to 1920." It gives no consideration to the prices prevailing in the three years preceding the effective date of the order. The price basis is substantially lower than the average for ten years ending 1923. There is deducted approximately 25 per cent. of estimated cost new to cover accrued depreciation. The deduction was not based on an inspection of the property. It was the result of a "straight line" calculation based on age and the estimated or assumed useful life of perishable elements. The commission's report indicates that the property is well-planned, well-maintained and efficient. Its chief engineer inspected it, and estimated its condition by giving effect to results of the examination and to the age of the property. He deducted about six per cent. to cover depreciation. Mr. Hagenah made an estimate of existing depreciation based on actual inspection and a consideration of the probable future life as indicated by the conditions found. He deducted less than six per cent. Mr. Elmes testified that he made an inspection and estimate of all the actual depreciation. He estimated \$443,044 would be required to restore the property as of appraisal date to its condition when first installed and put in practical operation. He deducted that amount. The testimony of competent valuation engineers who examined the property and made estimates in respect of its condition is to be preferred to mere calculations based on averages and assumed probabilities. The deduction made in the city's estimate cannot be approved. *Pacific Gas Co. v. San Francisco*, 265 U. S. 403, 406; *Standard Oil Co. v. So. Pacific Co.*, *supra*, 159; *Landon v. Court of Industrial Relations*, 269 Fed. 433, 445; *City of Winona v. Wisconsin-Minnesota Light & P. Co.*, 276 Fed. 996, 1004; *New York Telephone*

Co. v. Prendergast, 300 Fed. 822, 826; *Southern Bell Tel. & Tel. Co. v. Railroad Commission*, 5 F. (2d) 77, 95.

The company owns a canal in which water flows from the river to filter beds and to a power plant below them, where that not taken for filtration is used to pump water into the mains for distribution. The estimate of Mr. Bemis for the city eliminates the lower part of the canal and suggests the substitution of a steam plant. This reduces cost of reproduction new by \$1,073,539.63 and that less depreciation by \$785,013.11. The whole canal was included in the estimate of Mr. Carter which was adopted. The commission in its report in No. 7080 described the canal and the uses to which it is put including the production of power for pumping, and said: "This shows the work of a competent construction engineer." And in No. 6613, the commission said: "The canal appears to have been perfectly adapted to become a part of the water plant of the city. It intercepts the waters of White River near Broad Ripple. This is so far upstream that the source of supply has been free from the contamination arising from densely settled districts of the city for nearly half a century. . . . It saves the lift of millions of gallons of water daily from White River to the level of the filter beds. . . . The economic value of the canal is very large, when regard is given to the savings it effects, and the revenue it produces . . . Its great value lies in the fact that it has never failed to do efficiently the work that must be done by some instrumentality of the water plant. The cost of a steel or concrete main or conduit, that would carry a far less quantity of water, would exceed the cost of reconstruction of the canal, and its structural parts. The entire canal property is used and useful in the performance of the service this utility was created to perform."

There is to be ascertained the value of the plant used to give the service and not the estimated cost of a different

plant. Save under exceptional circumstances, the court is not required to enter upon a comparison of the merits of different systems. Such an inquiry would lead to collateral issues and investigations having only remote bearing on the fact to be found, viz. the value of the property devoted to the service of the public.

The estimate made for the city is not useful as a guide for ascertainment of value of the company's property for 1924.

For convenient comparison, there follows a statement of the estimates based on prices prevailing January 1, 1924 and those based on average prices in the ten years ending with 1923.

	<i>Spot prices</i>	<i>Average prices</i>
Carter	\$19,500,000	\$17,000,000
Hagenah and Erickson.....	22,669,000	19,624,000
Sanderson and Porter.....	21,898,000	18,931,000

While some expressions of the district judge indicate that he was of opinion that dominant or controlling weight should be given to cost of reproduction less depreciation estimated on spot prices as of January 1, 1924, it is clear that the \$19,000,000 fixed by him as the minimum value could not have been arrived at on that basis. The commission's chief engineer testified that his estimate on prices as of that date was \$19,500,000. This was exclusive of cash working capital, water rights and going value for which Hagenah and Erickson included \$2,735,000 and Sanderson and Porter \$2,961,245. But the commission in No. 6613 added \$135,000 for such working capital. It also added 9.5 per cent. of the value of the physical elements to cover water rights and going value, amounting to \$1,416,000. If only these additions be made to Mr. Carter's spot price estimate, there is produced \$21,051,000. And, if 9.5 per cent. of \$19,500,000 were taken to cover water rights and going value, the total would exceed \$21,487,000. Moreover, the estimates on the basis of

spot prices introduced by the company are considerably higher than Mr. Carter's figure.

The commission, November 28, 1923, in No. 7080 found seven per cent. to be a reasonable rate of return. It stated that was the rate the city's appraiser, Mr. E. W. Bemis, testified to be reasonable. At the trial, the company introduced testimony supporting higher rates. Mr. Hagenah and Mr. Elmes testified that eight per cent. was a reasonable rate of return. Mr. Metcalf, consulting engineer for the company, supported a rate from 7.5 per cent. to eight per cent. Appellants offered a study by Mr. E. W. Bemis of the rates of yield to investors on certain public utility bonds. He took into account 524 flotations put out at different times between July, 1921, and February, 1924, inclusive. The average yield in the last six months of 1921 was 7.33 per cent. and in February, 1924, 6.11 per cent. The trend was not downward throughout the whole period. It was upward from the last half of 1922 through all of 1923. And he testified that there should be added .4 of one per cent. to cover brokerage. It is obvious that rates of yield on investments in bonds plus brokerage are substantially less than the rate of return required to constitute just compensation for the use of properties in the public service. Bonds rarely constitute the source of all the money required to finance public utilities. And investors insist on higher yields on stock than current rates of interest on bonds. Obviously, the cost of money to finance the whole enterprise is not measured by interest rates plus brokerage on bonds floated for only a part of the investment. The evidence is more than sufficient to sustain the rate of seven per cent. found by the commission. And recent decisions support a higher rate of return.⁴

⁴ *Lincoln Gas Co. v. Lincoln*, 250 U. S. 256, 268; *Galveston Elec. Co. v. Galveston*, 258 U. S. 388, 400; *Bluefield Co. v. Pub. Serv. Com.* 262 U. S. 679, 692, *et seq.*; *Landon v. Court of Industrial*

There was controversy as to probable net earnings for 1924. The company's estimate is \$958,000; the city's \$1,121,550.19. The principal difference arises from the city's contention that the company's estimate of revenue was too low by \$67,758.92 and of operating expenses was too high by \$95,791.27.

While the facts stated in the court's decision are sufficient to sustain the decree, the findings as to value, the reasonable rate of return, and the net earnings are not as specific as good practice requires. As the litigation would be prolonged considerably if the case were remanded for further findings, we have examined the record to determine whether the facts proved justify the court's conclusion. *Knorrville v. Water Co.*, 212 U. S. 1, 8; *Chicago, M. & St. P. Ry. v. Tompkins*, 176 U. S. 167, 179; *Lincoln Gas Co. v. Lincoln*, 223 U. S. 349, 361; *Denver v. Denver Union Water Co.*, *supra*, 182; *Cole v. Ralph*, 252 U. S. 286, 290.

And we are satisfied that the decree is right. As indicated above, a reasonable rate of return is not less than seven per cent. In his decision the district judge plainly intimated that he was of opinion that probable net earnings for 1924 were not sufficient to pay more than five per cent. on \$19,000,000. The amount of net earnings in 1924, as estimated by appellants, is only sufficient to pay seven per cent. on \$16,022,145. The evidence requires a finding that, exclusive of the items classified by Mr. Carter as non-operative, the value of the property is much more than that amount. It is shown that, if due consideration be given to the price level and trend prevailing

Relations, 269 Fed. 433, 445; *Minneapolis v. Rand*, 285 Fed. 818, 830; *Mobile Gas Co. v. Patterson*, 293 Fed. 208, 221; *Southwestern Bell Telephone Co. v. City of Fort Smith*, 294 Fed. 102, 108; *New York Telephone Co. v. Prendergast*, 300 Fed. 822, 826; *Southern Bell Tel. & Tel. Co. v. Railroad Commission*, 5 F. (2d) 77, 89; *Brooklyn Union Gas. Co. v. Prendergast*, 7 F. (2d) 628, 672.

in the years immediately before and those probable during a reasonable time following the effective date of the order, January 1, 1924, the \$17,000,000 estimated by Mr. Carter on the basis of average prices in the ten years ending with 1923 is substantially less than the amount fairly attributable to the physical elements of the property. The evidence sustains an amount in excess of ten per cent. to cover water rights and going value and also \$135,000 for cash working capital. On a consideration of the evidence, it is held that the value of the property as of January 1, 1924 and immediately following was not less than \$19,000,000.

Decree affirmed.

MR. JUSTICE HOLMES concurs in the result.

MR. JUSTICE BRANDEIS, dissenting.

In the case at bar, as in *Galveston Electric Co. v. Galveston*, 258 U. S. 388, and *Georgia Railway & Power Co. v. Railroad Commission*, 262 U. S. 625, both the rate-making body and the lower court purported to adopt the rule of *Smyth v. Ames*, 169 U. S. 466, by which the value of the property, as of the time of the rate hearing, is taken as the rate base. Hence, the soundness of that rule—the question on which this Court divided in *Missouri ex rel. Southwestern Bell Telephone v. Public Service Commission*, 262 U. S. 276, and in *Pacific Gas & Electric Co. v. San Francisco*, 265 U. S. 403—is not involved here. Nor is the general question involved on which the Court divided in *Ohio Valley Water Co. v. Ben Avon Borough*, 253 U. S. 287, 297.

The Commission and the lower court likewise agreed that reproduction cost was evidence as to value. The primary questions on which they differed are these. Is a finding of reproduction cost tantamount to a finding of value? Is the reproduction cost which should be ascertained by the tribunal, the “spot” reproduction cost—that is, cost at prices prevailing at the time of the hearing?

Brandeis and Stone, J. J., dissenting.

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The District Court, as I read its opinion, answered both of these questions in the affirmative.¹ The learned judge assumed that spot reproduction cost is the legal equivalent of value. He found that \$19,000,000 was, on the evidence, the lowest conceivable spot reproduction cost. He assumed that, since the utility was willing to accept this minimum as reproduction cost, no amount less than that could be found by him to be the value, or rate base. He believed that recent decisions of this Court required him so to hold. In this belief he was clearly in error.

That reproduction cost is not conclusive evidence of value has been repeatedly stated by a unanimous Court. The rule of *Smyth v. Ames*, 169 U. S. 466, 547, requires not only that each class of other evidence of value be considered, but also that each class of evidence "be given such weight as may be just and right in each case."

¹"Granting that these cases [*Missouri ex rel. Southwestern Bell Tel. Co. v. Public Service Commission*, 262 U. S. 276; *Bluefield Water Works v. Public Service Commission*, 262 U. S. 679; *Georgia Ry. & Power Co. v. Railroad Commission*, 262 U. S. 625] were decided at a time when the Court had, as a matter of history in this particular field of jurisprudence, full cognizance of the probative character and the propriety of considering evidence such as is popularly called evidence of historical cost, evidence of reproduction cost upon a certain price level, evidence of value which is called prudent investment value, and, fourth, evidence of what is strictly and technically reproduction spot depreciated at the time of the inquiry; these cases press upon us sharply the query of why these cases, in their results, disclose the emphasis given to the last named of these four character[s] of evidence; and I am entirely content to accept the characterization made by the Judges in the Sixth Circuit in the so-called Monroe Gas case; that the necessary implication from their results is that dominating consideration should be given to evidence of reproduction value and, if that means anything, it means that evidence of reproduction value spot at the time of the inquiry must be considered as evidence of a primarily different character from either of the other three kinds of evidence. . . . Now, the Court is required, as it seems to me, to apply the principles that are to be discussed and to be accepted, as I indicated in my preliminary remarks, as to what the Supreme Court meant

Similarly, it was stated in the *Georgia Railway & Power* case, 262 U. S. 625, 630:

"The refusal of the Commission and of the lower court to hold that, for rate-making purposes, the physical properties of a utility must be valued at the replacement cost less depreciation was clearly correct. As was said in *Minnesota Rate Cases*, 230 U. S. 352, 434: 'The ascertainment of that value is not controlled by artificial rules. It is not a matter of formulas, but there must be a reasonable judgment having its basis in a proper consideration of all relevant facts.'"

There is, so far as I recall, no statement by this Court that value is tantamount to reproduction cost.

Nor do I find in the decisions of this Court any support for the view that a peculiar sanction attaches to "spot" reproduction cost, as distinguished from the amount that it would actually cost to reproduce the plant if that task were undertaken at the date of the hearing. "Spot" reproduction would be impossible of accomplishment with-

by what it said in these three cases. Is it possible . . . or can the Court now rationally say that the Commission here and, in order to test it out, include the Court here, can, by any sort of examination of the evidence, reach a conclusion that upon unimpeached evidence showing a minimum of spot reproduction values at \$19,000,000, it will still find reasonable value at \$15,260,000? . . . Now, that brings us to the evidence in this case and, as I said, can the Commission or can this Court now, say that there can be a rational reconciliation between unimpeached evidence of \$19,000,000, as a minimum cost reproduction value spot, and any other price level, particularly one showing a disparity of five million dollars—four or five? . . . I am not confronted with the problem of fixing a valuation within the range of dispute upon spot reproduction. I say I am not confronted with that problem, because the complainant comes into this Court and offers to accept \$19,000,000, as a fair basis of valuation, even though, as it says, and I think has reason to say and could support it, it could, upon the record, sustain a higher valuation." The decree itself recited "that the fair value of complainants' said property was and is not less than \$19,000,000."

out the aid of Aladdin's lamp. The actual cost of a plant may conceivably indicate its actual value at the time of completion or at some time thereafter. Estimates of cost may conceivably approximate what the cost of reproduction would be at a given time. But where a plant would require years for completion, the estimate would be necessarily delusive if it were based on "spot" prices of labor, materials and money. The estimate, to be in any way worthy of trust, must be based on a consideration of the varying costs of labor, materials, and money for a period at least as long as would be required to construct the plant and put it into operation. Moreover, the estimate must be made in the light of a longer experience and with due allowances for the hazards which attend all prophesies in respect to prices. The search for value can hardly be aided by a hypothetical estimate of the cost of replacing the plant at a particular moment, when actual reproduction would require a period that must be measured by years.

When a court declares that the rate base shall be the value, instead of the historical cost or the amount prudently invested in the enterprise, it selects the standard for measuring the property on which compensation is to be paid. It lays down a rule of law; and in the performance of that function there is always a legitimate field for theory. But when, having selected value as the standard for the rate base, the court undertakes to find what that value is at the date of the rate hearing, it purports to make a finding of fact. The process of determining facts will inevitably be misleading unless each step bears a close relation to the realities of life.

The evidence introduced before the trial court, which seems to be in substance the same as that introduced before the Commission, is now before this Court. We have power to examine the evidence and to enter such decree as may be appropriate. Compare *Denver v. Denver Union Water Co.*, 246 U. S. 178. But the better practice

requires that the case be remanded to the District Court, so that the evidence may be re-examined there in the light of the applicable rules. *Oklahoma Natural Gas Co. v. Russell*, 261 U. S. 290, 293; *Pacific Tel. & Tel. Co. v. Kuykendall*, 265 U. S. 196. Compare *Chicago, M. & St. P. Ry. Co. v. Tompkins*, 176 U. S. 167, 179; *Lutcher & Moore Lumber Co. v. Knight*, 217 U. S. 257, 267; *Brown v. Fletcher*, 237 U. S. 583; *Gerdes v. Lustgarten*, 266 U. S. 321, 327. To this end the decree should, in my opinion, be reversed.

To avoid the possibility of misunderstanding, I add merely that, in my opinion, the facts of record, considered in connection with those of which we have judicial notice, do not justify holding that rates which yield a return of less than 7 per cent. would be so unreasonably low as to be confiscatory.

MR. JUSTICE STONE joins in this dissent.

GRAVES v. MINNESOTA.

ERROR TO THE SUPREME COURT OF THE STATE OF
MINNESOTA.

No. 320. Argued October 21, 1926.—Decided November 22, 1926.

1. The requirement of Minnesota Gen. Stats. 1923, §§ 5757-5763, that every applicant for a license to practice dentistry shall produce before the board of dental examiners "his diploma from some dental college of good standing," of which the board shall be the judge, does not violate the Fourteenth Amendment. P. 426.
2. A State may, consistently with the Fourteenth Amendment, prescribe that only persons possessing the reasonably necessary qualifications of learning and skill shall practice medicine or dentistry. P. 427.
3. The State is primarily the judge of regulations required in the interest of public safety and welfare, and its police statutes may be declared unconstitutional only where they are arbitrary or unreasonable. P. 428.

166 Minn. 496, affirmed.